

Substitute for form 1449A/PTO

JUN 21 2004

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

1

of

4

Application Number

10/801,190

Filing Date

MARCH 15, 2004

First Named Inventor

LIHUA LI, ET AL.

Group Art Unit

UNKNOWN

Examiner Name

UNKNOWN

Attorney Docket Number

AMAT/8670/DSM/LOW K/JW

Submission Date

06/16, 2004

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	US-6,673,725 B2	01/06/2004	Shioya, et al.	
	A2	US-6,627,532 B1	09/30/2003	Gaillard, et al.	
	A3	US-6,645,883 B2	11/11/2003	Yamamoto, et al.	
	A4	US-6,624,053 B2	09/23/2003	Passemard	
	A5	US-6,593,247	07/15/2003	Huang, et al.	
	A6	US-6,570,256	05/27/2003	Conti, et al.	
	A7	US-6,541,369	04/01/2003	Huang, et al.	
	A8	US-6,537,733 B2	03/25/2003	Campana, et al.	
	A9	US-6,532,150	07/30/1985	Endo, et al.	
	A10	US-6,528,423	03/04/2003	Catabay, et al.	
	A11	US-6,511,909 B1	01/28/2003	Yau, et al.	
	A12	US-6,489,238 B1	12/03/2002	Tsui	
	A13	US-6,486,061	11/26/2002	Xia, et al.	
	A14	US-6,465,366	10/15/2002	Nemani, et al.	
	A15	US-6,436,824 B1	08/20/2002	Chool, et al.	
	A16	US-6,409,238	06/25/2002	Mikenis, et al.	
	A17	US-6,340,628 B1	01/22/2002	Van Cleemput, et al.	
	A18	US-6,340,628	01/22/2002	Van Cleemput, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	B1	WO 00/19498	04/06/2000			
	B2	EP 1 176 226 A1	01/30/2002			
	B3					
	B4					
	B5					

Examiner

Date Considered

5/11/2005

EXAMINER: initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). † See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ‡ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). † For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. § Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ¶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Please type a plus sign (+) inside this box → +

PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number		10/801,190	
				Filing Date		MARCH 15, 2004	
				First Named Inventor		LIHUA LI, ET AL.	
				Group Art Unit		UNKNOWN	
				Examiner Name		UNKNOWN	
				Attorney Docket Number		AMAT/8670/DSM/LOW K/JW	
Sheet	2	of	4	Submission Date		6/16, 2004	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
A19-A36	A19	US-6,340,435	01/22/2002	Bjorkman, et al.	
	A20	US-6,316,167	12/13/2001	Angelopoulos, et al.	
	A21	US-6,287,990	09/11/2001	Cheung, et al.	
	A22	US-6,159,871	12/12/2000	Loboda, et al.	
	A23	US-6,147,009	11/14/2000	Grill, et al.	
	A24	US-6,147,009	11/14/2000	Grill, et al.	
	A25	US-6,140,226	10/31/2000	Grill, et al.	
	A26	US-6,124,641	09/26/2000	Matsuura	
	A27	US-6,068,884	05/30/2000	Rose, et al.	
	A28	US-6,054,379	04/25/2000	Yau, et al.	
	A29	US-5,989,998	11/23/1999	Sugahara, et al.	
	A30	US-5,926,740	07/20/1999	Forbes, et al.	
	A31	US-5,818,071	10/06/1998	Loboda, et al.	
	A32	US-5,817,572	10/06/1998	Chiang, et al.	
	A33	US-5,638,251	06/10/1997	Goel, et al.	
	A34	US-5,554,570	09/10/1996	Maeda, et al.	
	A35	US-5,494,712	02/27/1996	Hu, et al.	
A36	US-5,298,597	03/29/1994	You, et al.		

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
B1-B5	B1					
	B2					
	B3					
	B4					
	B5					

Examiner <i>Shawville</i>	Date Considered <i>5/11/2005</i>
---------------------------	----------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Please type a plus sign (+) inside this box → +

PTO/SB/03a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Application Number	10/801,190
		Filing Date	MARCH 15, 2004
		First Named Inventor	LIHUA LI, ET AL.
		Group Art Unit	UNKNOWN
		Examiner Name	UNKNOWN
		Attorney Docket Number	AMAT/8670/DSM/LOW K/JW
Sheet 3	of 4	Submission Date	6/16, 2004

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
S	A37	US-5,087,959	02/11/1992	Omori, et al.	S
	A38	US-4,532,150	07/30/1985	Endo, et al.	
	A39	US-2003/0139062 A1	07/24/2003	Grill, et al.	
	A40	US-2003/0129827 A1	07/10/2003	Lee, et al.	
	A41	US-2003/0111730 A1	06/19/2003	Takeda, et al.	
	A42	US-2003/0089988 A1	05/15/2003	Matsuura	
	A43	US-2003/0077916	04/24/2003	Xu, et al.	
	A44	US-2003/0042605	03/06/2003	Andideh, et al.	
	A45	US-2003/0035904	02/20/2003	Hsieh, et al.	
	A46	US-2003/0022526	01/30/2003	Vyvoda, et al.	
	A47	US-2003/0003765 A1	01/02/2003	Gibson, Jr., et al.	
	A48	US-2002/0182894	12/05/2002	Andideh	
	A49	US-2002/0098714 A1	07/25/2002	Grill, et al.	
	A50	US-2002/0054982	05/09/2002	Dietrich, et al.	
	A51	US-2002/0054962 A1	05/09/2002	Huang	
	A52	US-			
	A53	US-			
	A18	US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
S	B1			S		
	B2					
	B3					
	B4					
	B5					

Examiner <i>Hamill</i>	Date Considered <i>5/11/2005</i>
------------------------	----------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * Applicant's unique citation designation number (optional). † See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ‡ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ‡ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. § Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ¶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Please type a plus sign (+) inside this box



PTO/SB/08b (08-03)

Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Application Number	10/801,190
		Filing Date	MARCH 15, 2004
		First Named Inventor	LIHUA LI, ET AL.
		Group Art Unit	UNKNOWN
		Examiner Name	UNKNOWN
		Attorney Docket Number	AMAT/8670/DSM/LOW K/JW
		Submission Date	6/16/2004
Sheet	4	of	4

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
<i>Q</i>	C1	PCT International Search Report for US 02/40034, dated May 19, 2003 (AMAT/6084.PC)	
<i>Q</i>	C2	WU, ET AL. "Advanced Metal Barrier Free Cu Damascene Interconnects with PECVD Silicon Carbide Barriers for 90/65nm BEOL Technology", 2002 IEEE, IEDM Pages 595-598.	
<i>Q</i>	C3	United States Patent Application No: 10/383,837, filed March 7, 2003 (AMAT/7838)	
	C4		

Examiner <i>Hamill</i>	Date Considered <i>5/11/2005</i>
------------------------	----------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.